292694

1.   A communication system in which a plurality of user terminals located in a plurality of service areas perform communications, the communication system comprising:

a mobility control node configured to manage a service area where each user terminal is located;

a session control node configured to manage a communication history of a communication performed by each user terminal; and

a network load prediction node configured to acquire user information of the user terminal located in each service area and the communication history of each user terminal at predetermined timing, and to calculate a communication demand prediction in each service area based on the user information and the communication history.

2.   The communication system according to claim 1, further comprising:

a network configuration management node configured to control a logical path between an access apparatus and a service control node based on the communication demand prediction acquired from the network load prediction node, the access apparatus being capable of communicating with a user terminal in a predetermined service area, and the service control node providing a predetermined service to the user terminal through the access apparatus.

3.   The communication system according to claim 1, further

comprising:

a user distribution database configured to manage user information of a user terminal in a communication state and user information of a user terminal in a non-communication state for each service area based on management information in the mobility control node, and

wherein the network load prediction node is configured to acquire the user information of the user terminal located in each service area from the user distribution database at predetermined timing.

4. A network load prediction node for use in a communication system in which a plurality of user terminals located in a plurality of service areas perform communications, the network load prediction node comprising:

an acquirer configured to acquire user information of the user terminal located in each service area and a communication history of a communication performed by each user terminal at predetermined timing; and

a calculator configured to calculate a communication demand prediction in each service area based on the user information and the communication history.

5. A network configuration management node for use in a communication system in which a plurality of user terminals located in a plurality of service areas perform communications, the network load prediction node comprising:

a controller configured to control a logical path between an access apparatus and a service control node based on a

communication demand prediction calculated based on user information of a user terminal located in each service area and a communication history of a communication performed by each user terminal, the access apparatus being capable of communicating with a user terminal in a predetermined service area, and the service control node providing a predetermined service to the user terminal through the access apparatus.

6.   A communication method in which a plurality of user terminals located in a plurality of service areas perform communications, the communication method comprising:

managing, in a mobility control node, a service area where each user terminal is located;

managing, in a session control node, a communication history of a communication performed by each user terminal;

acquiring, in a network load prediction node, user information of the user terminal located in each service area and the communication history of each user terminal at predetermined timing; and

calculating, in the network load prediction node, a communication demand prediction in each service area based on the user information and the communication history.